GRIFFIN INTERNATIONAL INC

March 27, 1996

Mr. Jason Feingold
State of Vermont
Department of Environmental Conservation
HMMD
103 South Main Street
Waterbury, VT 05671-0404

RE: 46 Kellogg Road, Essex Junction (VTDEC Site # 94-1726)

Dear Mr. Feingold:

Enclosed is Griffin's completed Site Assessment Report for the above referenced site. This report has been prepared in response to the VTDEC correspondence dated December 6, 1994 which requested additional work at this site. No contamination was found during this investigation, and no further actions appear to be warranted. Please review the report and call with any questions or comments that you may have.

Sincerely,

Peter Hack
Engineer

c: James Stead

P.O. Box 943 • Williston, VT 05495 • 802-865-4288

SITE ASSESSMENT REPORT

For

46 KELLOGG ROAD
ESSEX JUNCTION, VERMONT

VTDEC Site # 94-1726

MARCH 1996

Prepared for:

Mr. James Stead
109 Wilkins Lane
Stowe, VT 05672

Prepared By:

GRIFFIN INTERNATIONAL

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I. INTRODUCTION

This Site Assessment for 46 Kellogg Road (Former Land/Air), in Essex Junction, VT has been prepared by Griffin International, Inc. (Griffin) for James Stead, owner of the property. The site assessment was requested by the State of Vermont Department of Environmental Conservation (VTDEC), in a letter from Mr. Richard Spiese to Ms. Nancy Stead, dated December 6, 1994.

The site assessment was conducted to determine the degree and extent of subsurface petroleum contamination that was detected in the vicinity of a 500 gallon gasoline UST that was removed on November 15, 1994. The assessment also identifies potential receptors of the contamination and assesses the risks posed to these identified potential receptors. The assessment included the collection and field screening of soil samples from two on-site soil borings. This work was outlined in Griffin's December 20, 1994 Work Plan and Cost Estimate, as approved by the VTDEC on December 22, 1994.

II. SITE DESCRIPTION

The subject site is located in a low density commercial and light residential area at 46 Kellogg Road in Essex Junction, Vermont. The 1.3 acre lot contains one steel framed, slab-on grade commercial building, formerly leased to Land/Air (a recreational vehicle sales and service company). The building is served by municipal water and an on-site septic system.

The site is generally level, with a steep ravine located at the southwestern end of the site. Two catch basins collect surface water from the site and discharge into this ravine. Geologic maps of this area indicate the bedrock in this vicinity consists of Cutting dolomite. However, bedrock was not encountered during this investigation. Overburden materials encountered were predominantly medium sands.

The site formerly contained one 500 gallon capacity steel underground storage tank (UST) that had been used for gasoline storage. The UST was abandoned in 1992, and removed on November 15, 1994. A formal Tank Closure Report was submitted to the VTDEC on November 21, 1994.

III. SOIL BORINGS

To determine the extent of soil and/or groundwater contamination at this site, Griffin coordinated and supervised two soil borings in the presumed downgradient direction from the former UST. The borings were performed by Adams Engineering of Underhill, VT, using a truck mounted vibratory-driven, continuous spoon sampler. Continuous five foot soil samples were collected from the boreholes. The samples were screened in the field for volatile organic

compounds (VOCs) using a portable photo-ionization device (PID). PID readings and the soil characteristics were noted for inclusion on the Boring Logs in Appendix B.

Soil boring SB1 was placed approximately 40 feet from the former tank pit, in the presumed downgradient direction of groundwater flow. Due to the physical layout and locations of the former UST, the building, and a large concrete pad, it was not possible to locate SB1 any closer to the former UST. Soils in this borehole consisted mainly of damp medium sand with silt and very fine sand encountered between 15 feet and 20 feet below grade. This boring was advanced to a final depth of 20 feet below grade. PID readings of four soil samples collected from this hole indicated a maximum VOC concentration of 0.2 parts per million (ppm). The water table was encountered at approximately 16 feet below grade.

Soil boring SB2 was placed farther to the southwest behind the building, also in the presumed downgradient direction of groundwater flow. Soils in this hole consisted of medium sands with some silt, grading to dense silt and clay at nineteen feet below grade. PID screening of four soil samples collected from this hole did not detect any VOC concentration above 0.1 ppm. The water table was detected at approximately 16 feet below grade.

Since no significant indications of petroleum contamination were observed or detected in these two soil borings, it was determined that installation of monitoring wells was not necessary, as per the Work Plan.

IV. RECEPTOR SURVEY AND RISK ASSESSMENT

A visual survey of the area was conducted to locate and identify potential sensitive receptors. Identified receptors include the on-site building and the stream at the bottom of the ravine. Due to the lack of contamination detected down gradient of the former UST, and the VOC concentrations detected at the source during the tank removal, there does not appear to be a significant risk of impact to these potential receptors.

V. CONCLUSIONS

1) There was a release of petroleum at this site, as indicated by the VOC concentrations in the soils surrounding the former gasoline UST. The amount and duration of the release are not known, but the likely source of the release is the former gasoline UST system. The UST was removed in November 1994, and there are no other potential sources of petroleum contamination at this site.

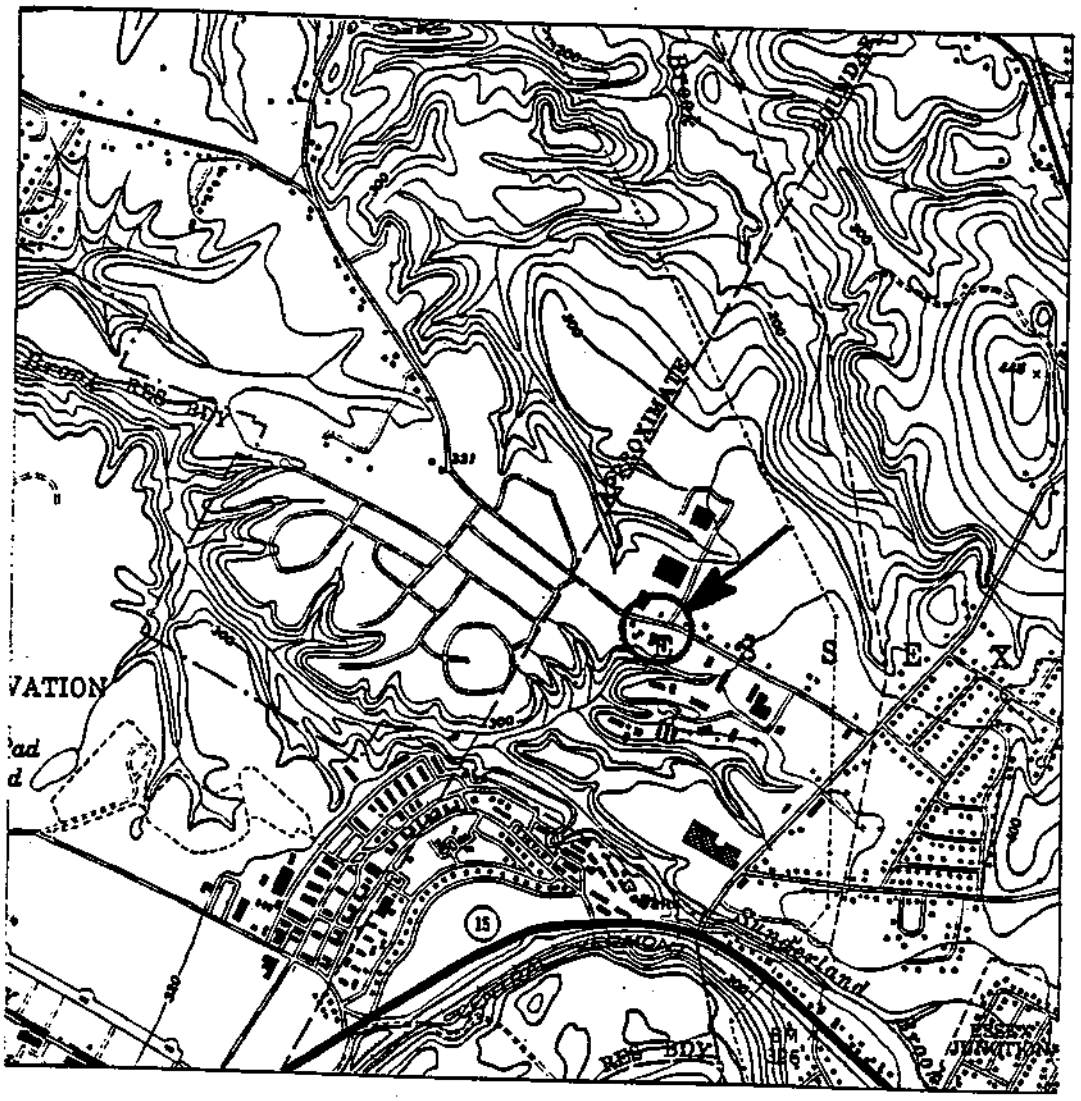
2) Based on the non-detectable concentrations of VOCs in the soil borings, the low risk of impact to the identified potential receptors, and the groundwater flow direction, the subsurface contamination detected in the former tank pit does not pose a significant threat to human health and safety or to the environment.

VI. RECOMMENDATIONS

Based on Griffin's investigations at this site and the conclusions above, we do not advocate further actions at this site. We recommend that the site be designated as "Sites Management Activity Complete" (SMAC), per VTDEC guidelines, and be removed from the current VTDEC Hazardous Sites List.

APPENDIX A

Site Location Map
Site Map



OB #: 1094594
OURCE: USGS- COLCHESTER, VERMONT QUADRANGLE

GRIFFIN INTERNATIONAL INC

LANDAIR

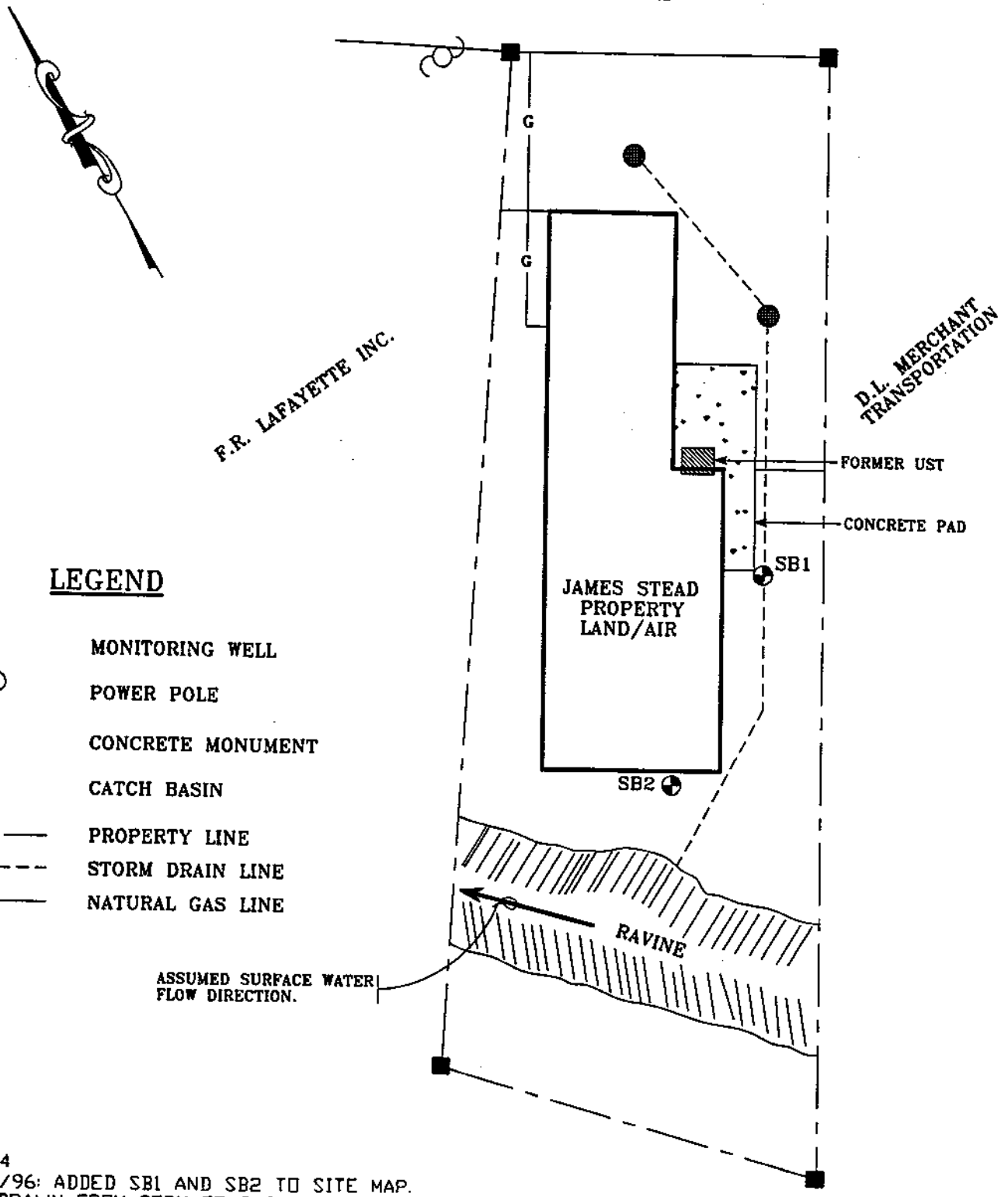
KELLOG ROAD ESSEX JCT., VERMONT

SITE LOCATION MAP

DATE: 11/2/94 | DWG.#:1 | SCALE: 1:24000 | DRN.: SB | APP.:

APPENDIX B

Boring Logs



JOB #: 1094594
REVISED 3/20/96: ADDED SB1 AND SB2 TO SITE MAP.
SITE SKETCH DRAWN FROM COPY OF SURVEY DONE BY ENGINEERS INC. OF VERMONT DATED 1971.

GRIFFIN INTERNATIONAL INC

LANDAIR

KELLOG ROAD ESSEX JCT., VERMONT

SITE MAP

DATE: 3/20/96	DWG.#: 2	SCALE: 1"=60'	DRN.: SB	APP.:PH

PROJECT LAND AIR

LOCATION ESSEX JCT., VERMONT

DATE DRILLED 3/19/96 TOTAL DEPTH OF HOLE 20'

DIAMETER 3.5"

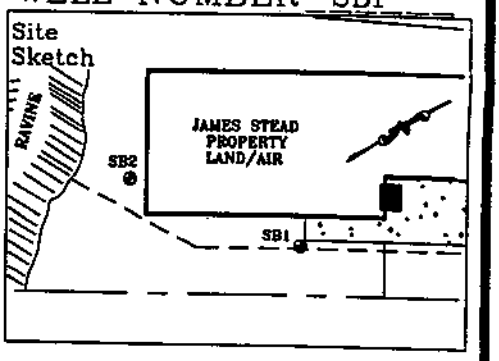
SCREEN DIA. NA LENGTH NA SLOT SIZE NA

CASING DIA. NA LENGTH NA TYPE NA

DRILLING CO. ADAMS ENGR. DRILLING METHOD VIBRATORY

DRILLER JERRY ADAMS LOG BY P. HACK

WELL NUMBER SB1



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DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0					0
1					1
2					2
3			2'–5' 0.1 ppm	Dry/damp, medium brown/gray SAND, trace asphalt.	3
4					4
5					5
6					6
7			5'–10' 0 ppm	Damp, medium/coarse, black/brown dense SAND.	7
8		NATIVE BACKFILL			8
9					9
10					10
11					11
12			10'–15' 0.2 ppm	Damp, brown/black SILT and very fine SAND.	12
13					13
14					14
15					15
16				16.5' WATER TABLE ▼	16
17					17
18					18
19			15'–20' 0.1 ppm	Wet SILT and very fine SAND, with an 8" layer of wet clay at approximately 19.0'.	19
20		UNDISTURBED NATIVE SOIL		END OF EXPLORATION AT 20'	20
21					21
22					22
23					23
24					24
25					25

PROJECT LAND AIR

LOCATION ESSEX JCT., VERMONT

DATE DRILLED 3/19/96 TOTAL DEPTH OF HOLE 22.5'

DIAMETER 3.5"

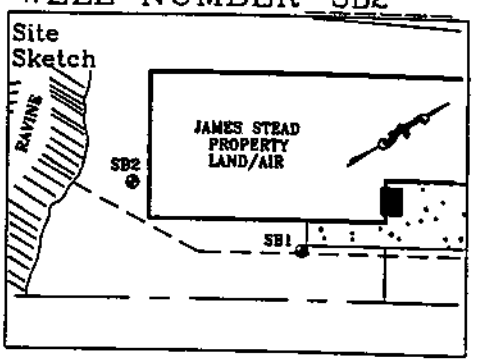
SCREEN DIA. NA LENGTH NA SLOT SIZE NA

CASING DIA. NA LENGTH NA TYPE NA

DRILLING CO. ADAMS ENGR. DRILLING METHOD VIBRATORY

DRILLER JERRY ADAMS LOG BY P. HACK

WELL NUMBER SB2



GRIFFIN INTERNATIONAL, INC

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0–2					0–2
2–5			2'–5' 0.1 ppm	Damp, medium brown SAND.	2–5
5–10			5'–10' 0.1 ppm	Damp, medium brown SAND with dense silt at 10.0'.	5–10
10–15		NATIVE BACKFILL	10'–15' 0 ppm	Dry SAND, then dense gray SILT, then damp SILT and very fine SAND, then medium SAND.	10–15
15–16				16.5' WATER TABLE ▼	15–16
15–20			15'–20' 0 ppm	Moist, dense, gray SILT with 8" of soft clay at 19.0'.	16–20
20–22					20–22
22–23		UNDISTURBED NATIVE SOIL		END OF EXPLORATION AT 22.5'	22–23
23–25					23–25